

## REMARKS

The Office Action mailed August 23, 2006 has been reviewed and carefully considered. Claims 1, 7, 10, 11, 17, and 20 have been amended. Claims 1-21 are pending. Claim 21 is acknowledged as being allowed. Reconsideration of the claims in view of the remarks provided herein below and withdrawal of the present rejections are respectfully requested.

In paragraph 1 on page 2 of the Office Action, claims 7, 10, 17 and 20 were objected to because of informalities.

Applicants respectfully traverse the objection, but in the interest of expediting prosecution have amended the claims to overcome the objection.

In paragraph 3 on page 2 of the Office Action, claims 1, 5-8, 11, 15-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hasegawa.

In paragraph 4 on page 4, Claim 21 was noted as allowed.

In paragraph 4 on page 4, Claims 2-4, 9, 12-14 and 19 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants respectfully traverse the rejection, but in the interest of expediting prosecution have amended claims to more particularly distinguish the invention over the cited reference.

Hasegawa discloses a biasing layer. The biasing layer is disposed towards the sides of the free layer and is separated from the free layer by a high coercivity layer. The high coercivity layer runs along the side edge of the free layer and extends away from the sensor stack to separate the bias layer from the insulating layer, the barrier layer and the pinned layer.

In contrast, the independent claims of the present application, as amended, recite a spacer layer formed over a top surface of the free layer of the sensor stack and a biasing layer disposed

on and in contact with a top surface of the spacer layer. Hasegawa fails to disclose, teach or suggest a a biasing layer disposed on and in contact with a top surface of the spacer layer.

According to Hasegawa, the biasing layer is not disposed on the spacer layer, but is instead disposed beneath the spacer layer.

The independent claims of the present application, as amended, recite a high coercivity layer formed without contact with the biasing layer and adjacent the sensor stack. However, as described above, the high coercivity layer of Hasegawa runs along and in contact with the side edge of the free layer.

Accordingly, Hasegawa fails to disclose, teach or suggest a biasing layer disposed on and in contact with a top surface of the spacer and a high coercivity layer formed without contact with the biasing layer and adjacent the sensor stack for pinning the biasing layer.

On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Attorney for Applicant, David W. Lynch, at 423-757-0264.

Respectfully submitted,

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